

The Design of Public Health Programs For Underdeveloped Countries

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DURING the past quarter century, the growth of activity toward the improvement of the public health has been unprecedented. Although this has occurred throughout the world, necessarily the degree, direction, and method have been subject to considerable variation. On the one hand are a number of usually older and economically more fortunate nations which have moved in the main stream of recent history and social development. These have experienced a continuous improvement in their standards of living, a most important characteristic of which has been the evolution of adequate medical care and sound public health activities resulting in a longer and healthier life. On the other hand are a large number of countries, often new as independent nations and generally underdeveloped, in which the advantages of modern medicine and public health have been inadequately available up to the present.

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Largely by virtue of improved health and increased length of life, one group of nations has been able to achieve great economic, agricultural, and industrial development and to obtain widespread educational and social benefits for the majority of their people. Many of the other group, however, remain handicapped by overwhelming backlogs of preventable illnesses which delay or preclude a desirable physical development of their people and the effective utilization of their resources.

The Vicious Circle

The relationship between disease and the various economic, social, and political conditions represents, of course, a vicious circle. Disease breeds poverty, and poverty in turn breeds more disease. Disease, illiteracy, political instability, and many other factors are similarly related. It is difficult, if not impossible, to state which factor is primary, which is cause and which is effect. Once the circle is established, however, each factor contributes to the continuance of all other undesirable factors. This is what is termed cumulative causation.

Shown in the accompanying table are data on the health, economic, and educational conditions in the more developed regions and the less developed regions of the free world, which illustrate this circle relationship. Included in the generally more developed regions are North America, Western and Southern Europe, Au-

stralasia, and Japan; and in the generally less developed regions, Latin America, Southeastern Europe, the Near East, Africa, and South and Southeast Asia. (For the sake of depicting broad geographic areas of relative development and for convenient statistical handling, certain countries which are obvious exceptions to the region in which they are located are nevertheless included in that region.) From these data, it can be seen, first, that twice as many people live in the less developed regions than in those that are more developed. Beyond this, in every phase of development measured, the less developed regions are significantly disadvantaged in comparison with the more developed regions.

Until relatively recently, it was possible for such disparity to exist without conditions and events in one area affecting those in another. However, in a shrinking world characterized by rapid international and intercontinental transit, by increasing trade, and by increasingly complex international economic and political

interdependence, this is no longer the case. History has reached the point where neither the United States nor any other nation can enjoy the fruits of peace and prosperity except in company with their fellow men and their fellow nations.

The Government of the United States, through declaration of policy as contained in acts of Congress and pronouncements of the President and the Secretary of State, has expressed the belief that the chances for world peace, world prosperity, and world progress would be much brighter if conditions of ill health, poor diet, lack of knowledge, and low standards of living could be changed for the better. It is therefore attempting to break the insidious circle by assisting, particularly, the less developed countries of the free world to help themselves raise their standards of living. From the beginning of the United States bilateral technical assistance programs, the improvement of health has been one of the primary goals.

Comparison of economic, health, and educational conditions in the more developed and less developed regions of the free world

Condition	More developed regions	Less developed regions
Population, 1950 (millions)-----	534.0	1,061.0
National income, 1949 (dollars per capita)-----	690.0	70.0
Nonhuman energy, 1950 (metric tons of coal per capita or equivalent)-----	3.8	.2
Percentage of men in nonagricultural employment-----	73.0	33.0
Births per 1,000 population, 1950-----	21.7	43.5
Deaths per 1,000 population, 1950-----	10.5	25.9
Infant mortality per 1,000 births, 1950-----	45.0	183.0
Expectation of life (years)-----	63.0	34.0
Crop yields (bushels per acre):		
Wheat, 1949-51-----	26.0	13.0
Rice, 1949-50 and 1951-52-----	69.0	30.0
Calories per person per day-----	2,800	2,000
Animal protein per day (ounces)-----	1.4	.4
Persons per physician, 1945-50-----	1,000	14,000
Illiterates per 100 persons:		
Males-----	5	64
Females-----	7	83
Elementary school teachers per 1,000 population-----	3.6	1.3
External trade, 1949 (dollars per capita)-----	140.0	32.0
Consumption of textiles, 1948 (pounds per capita)-----	21.0	5.0

A New Approach in Planning

In the emergency circumstances in which the United States technical assistance programs developed—during World War II in Latin America and soon after the war in other areas—the drive was to recruit effective and experienced personnel as quickly as possible, to supply them with the means for getting things done, and to obtain early results. There was insufficient time for as complete and as careful planning as was desired. There was little experience to draw on, and pressures were great from all sides. Despite these conditions, it is generally conceded that a great deal was accomplished.

More recently, however, there has been time for taking a new look at these programs. Increasingly, it has been realized that some system of priorities in health technical assistance to underdeveloped countries is essential since health needs are so vast and the resources in funds and trained personnel are so limited. Furthermore, a health technical assistance program must be based on a clear consideration of all the elements concerned in it. It must be shaped with thought, not by luck. Depending

for success upon cooperation with other governments, it obviously must consider their wishes but must also avoid giving way to inadvisable expediency.

Accordingly, in August 1953, a series of priorities, representing the results of thoughtful consideration of the matter by experienced workers in the international health field, was developed. It was formulated at a 3-day conference of professional personnel of the Public Health Division of the Foreign Operations Administration, the Division of International Health of the Public Health Service, and the Division of International Cooperation of the Children's Bureau. The group consisted of 12 persons and included members of all the major health disciplines. Significantly, every one of the 38 countries in which United States technical assistance programs in health are being conducted had been worked in or visited officially by one or another member of the group.

The first step was to consider certain elemental questions. What are the fundamental purposes and aims of United States technical assistance programs? Is there really a place for health activities in the technical assistance programs? If so, which health activities should be given consideration? In answer to these questions, it was determined that beyond the obvious humanitarian and scientific reasons, United States technical assistance programs in health were justifiable on two bases:

1. The extent to which they strengthen the economies of other nations by health benefits which release effective human energy, improve citizen morale, improve environment for local and foreign investment, and open new land and project areas.

2. The extent to which they contribute to desirable political objectives by aiding the stability of governments, by reaching large populations with highly welcomed personal service programs, and by demonstrating the United States' deep human interest in man and his dignity.

The various bases upon which health activities in technical assistance programs should be chosen and judged were then discussed, the general program goals and justifications being kept constantly in mind. Two features of the pro-

grams were emphasized: (a) The period of time in which the United States will be working in these countries is limited; (b) the basic purpose is to show other countries how they may do the job themselves rather than to try to do the job for them. For many reasons, it was concluded that activities that can affect the welfare of large numbers of people within a relatively brief interval of time should be favored. It was noted also that, although a great many health activities have merit, certain of them are impractical for technical or scientific reasons or because of administrative or cultural difficulties.

These determinations led to the development of a chart for the classification of various program elements. Down one axis were listed the various types of health activities that had been previously suggested or engaged in or that conceivably might be suggested. Across the other axis were listed evaluation criteria, some of which have been referred to above: economic feasibility, political feasibility, technical feasibility in the light of present-day scientific knowledge, administrative feasibility, cultural acceptability, early recognizable results, results in relation to cost, take-over ability by host country, and number of persons affected. Each possible activity was thoroughly discussed in relation to each criterion under which it was eventually rated from zero to four plus. As a result, for the first time it was possible to look at activities in international technical assistance in health from an overall objective, yet relative, viewpoint.

Three Priority Categories

From the consensus developed with regard to each possible activity, the activities seemed to fall into three broad priority categories, as follows:

1. Of highest priority are activities or programs that are always and unquestionably justified wherever the related problems exist. Malaria control is perhaps the example par excellence. It is always politically and culturally acceptable; the necessary technical and scientific knowledge and tools are at hand; their use is administratively feasible; results are rapid, recognizable, and appreciated; large numbers of people are affected at very low cost

per person, a cost so low that the host country can practically always take over the maintenance job; and, finally, the total economy of the family, community, and nation is favorably affected by the activity.

2. Of secondary importance are activities or programs that would not be favored in the absence of special precise explanation and justification because of reservations with regard to one or several evaluation criteria. Thus, although antitrachoma programs may be favored on the bases of economic value and public and political acceptability, there may be some question about the technical feasibility of such programs in relation to certain organizational and administrative difficulties.

3. In the lowest category are activities or programs that are definitely not justified and that should not be a part of the technical assistance program except under unusual circumstances. In rare instances, certain peculiar nonhealth considerations might result in a decision to engage in one of these activities. In this category would fall most programs in the field of noncommunicable chronic disease, for example. In relation to conditions in practically all underdeveloped countries, such programs would receive low ratings under most of the criteria mentioned.

A summary of the activities included in each of the three priority groups follows.

FIRST PRIORITY

(acceptable without justification)

1. Mass campaigns against malaria and yaws, where they are major problems, and against selected gross nutritional deficiencies, such as kwashiorkor, beriberi, xerophthalmia, and goiter, where they may be readily attacked.

2. Development of small, protected community water supplies.

3. Demonstrations through health centers of services on a communitywide basis, including sanitation, communicable disease control, health records and statistics, home visiting, maternal and child health, nutrition, health education, laboratory, and general clinical services where required to gain acceptance of the community. Health centers should be used for subprofessional training and field experience

for professional personnel and should be limited in scope and number to the national capacity to absorb and operate them.

4. Advice and assistance in strengthening and lending stability to the organization and operation of the public health administration of the host government.

5. Inclusion of training and health service projects in proposed or existing community or village development programs.

6. Advice and assistance in planning and designing, and supervision of construction, of hospitals, health centers, laboratories, and other health facilities.

7. Development and support of basic training of nurses to demonstrate the proper status of nursing as a profession and to provide leadership for indigenous training.

8. Training of subprofessionals to meet major specific health problems in preventive medicine, nursing, sanitation, limited medical services; such training to develop personnel for a planned program which must include professional supervision and periodic refresher training. Where practicable, opportunity should be given for advancement of outstanding individuals to higher levels.

9. Fellowships in public health, preferably project related, in the United States, not necessarily limited to 1 year, awarded to physicians, engineers, nurses, health educators, laboratory technicians, public health statisticians, and administrators. Training should be provided in the host country or region to the maximum extent possible.

10. Programs for training key medical school teachers in major clinical and preclinical specialties. Training should be provided in the host country or region to the maximum extent possible.

11. Construction of demonstration health centers and nursing schools when necessary to the success of these programs by insuring physically adequate, effective planned facilities.

SECOND PRIORITY

(require explanation and justification)

1. Mass campaigns against other diseases where of major importance; for example, trachoma, louseborne typhus, and leprosy.

2. Consultation on urban water or sewerage systems.
3. X-ray, audiovisual, or other major equipment for hospitals or health centers.
4. Excreta disposal projects, other than as an integral part of a community general sanitation program.
5. Refuse disposal, fly control, and food protection projects.
6. Assignment of United States personnel to foreign institutions, except on a short-term consultation basis (3 months or less).
7. Occupational health services.
8. Projects for tuberculosis immunization (BCG), case finding, and ambulatory treatment, where the problem warrants and facilities permit.

THIRD PRIORITY

(only under most unusual circumstances)

1. Mobile clinics requiring specialized motor equipment, or mobile clinics for general medical care.
2. Construction or financing of construction of hospitals, water and sewerage systems, or other major structures.
3. Operation of hospitals by United States personnel or at United States expense.
4. Training of practicing physicians in clinical specialties in the United States.

5. Dental health projects.
6. Mental hygiene projects.
7. Establishment, equipping, or operation of blood banks.
8. Medical rehabilitation projects.
9. Mass treatment for intestinal parasites.
10. Geriatrics projects.
11. Poliomyelitis control or treatment projects.
12. Training in tropical medicine in the United States.

It is fully recognized that any such priority grouping would not be subscribed to in every detail by all health technicians in all country programs at all times. Application of the list must be related to individual country conditions and the stage of development of its resources and health administration. Therefore, each of the health program chiefs has been urged to make, in cooperation with his staff and the host country counterparts, the same evaluation and program development analysis in terms of the problems and situations peculiar to the country in which he is working. Despite its limitations, it is believed that thoughtful application of this procedure on a country-by-country basis is resulting in a more consistent policy and greater effectiveness in attaining the objectives of the technical assistance programs.

Mental Health Training Grants Closing Date

The Public Health Service announces December 15, 1954, as the closing date for filing applications for training grants under the National Mental Health Act for the academic year 1955-56.

Applications for the support of projects on the development and evaluation of current and new teaching and training methods in psychiatry, clinical psychology, psychiatric social work, and psychiatric nursing will also be received. These projects may be for the purpose of assessing or evaluating the effectiveness of current training, or may propose an exploration of new methods of teaching intended to improve the quality of instruction in these fields. Preference will be given to projects containing evaluation procedures intended to assess the usefulness and effectiveness of the methods under study.

Application forms and additional information may be obtained from the Training and Standards Branch, National Institute of Mental Health, Public Health Service, Bethesda 14, Md.